



# Best Management Practices for Construction and Development Projects Lake Sturgeon *Acipenser fulvescens*

**Common name** • Lake Sturgeon  
**Scientific name** • *Acipenser fulvescens*  
**Federal status** • Under Review  
**State status** • Endangered

## Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended as a guide to manage habitat for a given species. Please contact the Department of Conservation if habitat management information is needed. Because every project and location differ, following the recommendations in this document does not guarantee impacts will not occur to the species and additional information may be required in certain instances. Following the recommendations in this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

## Ecology

In Missouri, Lake Sturgeon are found in the Mississippi and Missouri Rivers, their tributaries, and Lake of the Ozarks. In rivers, they prefer main channel border habitats, but also use side channels, sand flats, dike fields, and the tailwaters of dams. In lakes, they use mud flats and areas with deeper habitats. Lake Sturgeon may reach 8 feet in length and weigh over 310 pounds. They are selective bottom feeders of snails, mussels, small fish, crawfish, and aquatic insects.

Adults may migrate hundreds of miles to spawning areas. Spawning occurs in spring when water temperatures are between 48 – 70 degrees F (late March – late May), with peak spawning occurring between 53 - 60 degrees F (mid-April to mid-May). Eggs are deposited on submerged rock, with flows between 0.5 and 1.5 meters per second. Eggs hatch in 7 – 10 days, but larvae remain on-site for another 10 – 14 days as they absorb the yolk sac. Growth is slow and sexual maturity is reached between 20 and 30 years of age. Males live to over 50 years old; females may exceed 100 years.

## Reasons for Decline

Lake Sturgeon were a common and economically important fish prior to 1900. They are now listed as either threatened or endangered throughout most of its range in the United States and are being considered for

inclusion on the Endangered Species List. Over-harvest, loss of spawning habitat, and constructed barriers to migration led to their decline.

Several states in the Mississippi River basin have established Lake Sturgeon recovery programs. Missouri began stocking fry and fingerlings in the mid-1980's and continue to stock nearly annually. Coordination is also occurring to provide spawning-favorable habitat and flows where Lake Sturgeon congregate.

## Specific Recommendations

Although Lake Sturgeon populations have declined across much of their range, Missouri's population appears to be improving due to recovery efforts. The following guidelines are recommended to avoid or minimize impacts to Lake Sturgeon habitat.

- Work should be completed outside of the spawning, hatching, and yolk-absorption dates (late March to late May).
- Alteration and removal of rocky habitats with flow should be avoided where this species occurs.
- Practices that will increase siltation in preferred habitat should be avoided.
- Dams and construction of other impassable structures should be prohibited in large rivers and their tributaries.
- Channel alterations that will limit or eliminate sloping rocky bank habitats should be avoided.
- Fish use around dikes and dike fields should be determined before individual dikes are altered.

## General Recommendations

Refer to *Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams*.

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or the [Missouri Department of Transportation Environmental Studies webpage](#) for additional information on recommendations.

## Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

For species information:

[Missouri Department of Conservation](#)

Science Branch  
P.O. Box 180  
Jefferson City, MO 65102-0180  
Telephone: 573-751-4115

For species information and Endangered Species Act  
Coordination:

[U.S. Fish and Wildlife Service](#)

Ecological Services  
101 Park Deville Drive, Suite A  
Columbia, MO 65203-0007  
Telephone: 573-234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573-751-1300, 800-361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816-389-3990

[U.S. Environmental Protection Agency](#)

EPA Region 7 Water Division  
11201 Renner Boulevard  
Lenexa, KS 66219  
Telephone: 913-551-7977

## **Disclaimer**

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors, and others to provide guidance to those who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Federal laws such as the Clean Water Act and the Endangered Species Act, and state or Local laws need to be considered for construction and development projects and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.